

ABSTRACT OF THE DISCLOSURE

A method and system are disclosed for automatically generating embroidery designs from a scanned image. An embroidery data generating mechanism generates accurate embroidery designs. The embroidery data generating mechanism first reads an image data file, which contains bitmapping information generated from a software scanning tool, the information being related to an embroidery pattern that has been scanned.

The scanned pattern is broken up into pixels, each pixel in the scanned image having a bitmap associated with the color of the pattern. Each unique color in the scanned pattern has its own unique bitmap. The embroidery generating mechanism also includes a segmentation mechanism and a chain-encoding mechanism which perform operations to enhance the quality of the bitmapped information and to separate regions of the scanned image into objects. A distance transform evaluation mechanism classifies each object as being either a thick object or a thin, predominantly regular object. Additional mechanisms further interpret the objects into entities such as regular and singular regions and compute optimum sewing paths for embroidery data generation.